

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicant's representative on October 14, 2011.

The application has been amended as follows:

As to **claim 1**, please amend the claim limitation, “*a common drive circuit connected to the common electrode and operable to generate a common drive signal alternating between a second high voltage and a second low voltage differing in voltage by more than the process-limited maximum, the common drive signal being asymmetrically bipolar with respect to the first low voltage.*” with the limitation, “*a common drive circuit connected to the common electrode and operable to generate a common drive signal alternating between a second high voltage and a second low voltage differing in voltage by more than the process-limited maximum, the common drive signal being asymmetrically bipolar with respect to the first low voltage, wherein the first low voltage and the second low voltage differ in voltage by less than or equal to a threshold voltage at which an electro-optical response is produced by the electro-optical material.*”.

As to **claim 2**, please cancel the claim.

As to **claim 3**, please amend the claim to be depended on claim 1 instead of claim 2.

As to **claim 6**, please cancel the claim.

As to **claim 14**, please replace the claim limitation, "the phase relationship" with the limitation, "a phase relationship".

As to **claim 16**, please replace the claim with the following claim.

"The drive circuit of Claim 14, A drive circuit for driving a display device comprising electro-optical material disposed between a common electrode and an array of pixel electrodes, said drive circuit comprising:

pixel drive circuits connected to respective ones of the pixel electrodes and operable to generate respective pixel drive signals alternating between a first high voltage and a first low voltage differing in voltage by less than or equal to a process-limited maximum; and  
a common drive circuit connected to the common electrode and operable to generate a common drive signal alternating between a second high voltage and a second low voltage differing in voltage by more than the process-limited maximum, the common drive signal being asymmetrically bipolar with respect to the first low voltage, wherein the first low voltage and the second low voltage differ in voltage by less than or equal to a threshold voltage at which an electro-optical response is produced by the electro-optical material, wherein at least one of said pixel drive circuits and said common drive circuit is further operable to vary the phase relationship between the respective pixel drive signals and the common drive signals, wherein the process-limited maximum is less than or equal to 1.8 volts.".

As to **claim 17**, please replace the claim limitation, "and driving the common electrode with a common drive signal alternating between a second high voltage and a second low voltage differing in voltage by more than the process-limited maximum, the common drive signal being asymmetrically bipolar with respect to the first low voltage." with the limitation, "and driving

*the common electrode with a common drive signal alternating between a second high voltage and a second low voltage differing in voltage by more than the process-limited maximum, the common drive signal being asymmetrically bipolar with respect to the first low voltage; determining a threshold voltage at which an electro-optical response is produced by the electro-optical material; and setting the first low voltage and the second low voltage to differ in voltage by less than or equal to the threshold voltage and the first high voltage and the second high voltage to differ in voltage by less than or equal to the threshold voltage."*

As to **claim 18**, please cancel the claim.

As to **claim 22**, please replace the claim limitation, "to control the timing of the common drive signal" with the limitation, "to control a timing of the common drive signal".

The following is an examiner's statement of reasons for allowance:

None of the cited prior arts teaches a drive circuit for driving a display device comprising electro-optical material disposed between a common electrode and an array of pixel electrodes, said drive circuit comprising pixel drive circuits operable to generate respective pixel drive signals alternating between a first high voltage and a first low voltage differing in voltage by less than or equal to a process-limited maximum and a common drive circuits operable to generate a common drive signal alternating between a second high voltage and a second low voltage differing in voltage by more than the process-limited maximum, the common drive signal being asymmetrically bipolar with respect to the first low voltage, wherein the first low voltage and the second low voltage differ in voltage by less than or equal to a threshold voltage at which an electro-optical response is reproduced by the electro-optical material.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEOKYUN MOON whose telephone number is (571)272-5552. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 572-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 17, 2011  
/Seokyun Moon/  
Primary Examiner, Art Unit 2629